



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,326	05/10/2001	Akira Takada	109414	4790
25944	7590	05/27/2004		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER CHAWAN, SHEELA C	
			ART UNIT 2625	PAPER NUMBER 9
DATE MAILED: 05/27/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/852,326

Applicant(s)

TAKADA ET AL.

Examiner

Sheela C Chawan

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-18 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5, 6 and 8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Preliminary Amendment

2. Preliminary amendment filed on 5/10/01 has been entered.

Drawings

3. The Examiner has approved drawings filed on 10/9/03.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103[©] and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2625

Claims 1-6, 10-18, are rejected under 35 U.S.C. 103(a) as being unpatentable over M. Marefat "A framework for image interpretation in manufacturing applications", 1990, IEEE, Page 570- 574, in view of Granville et al. (US.5,590,060), Listed in IDS paper # 8).

As to claim 1, Marefat discloses an apparatus for generating a part program with description of measurement procedures to be used in an image-measuring instrument for measuring a work based on image data obtained by imaging said work (abstract, Paragraph 1 introduction), said apparatus comprising:

a work data input means for reading work data of said work (work data corresponds to measurement of the object features like hole and slots of a part are matched correctly and taken from different orientation, fig 1);

a graphic selection means for selecting a graphic corresponding to an element to be measured in said work among said work data displayed by said display means (Page 570, Paragraph 4);

a measurement condition setting means for previously setting measurement conditions containing a generation condition on an edge detection tool (fig 1) applicable to each graphic type (Page 570, paragraph 3); and

a part program generation means for generating an edge detection tool (fig 1) corresponding to said each selected graphic based on said measurement conditions set in said setting means, and for generating a part program containing an edge detection command by said generated edge detection tool (Page 571, paragraph 5).

Marefat discloses a framework for intelligent interpretation of images in manufacturing applications. Marefat is silent about specifics details of a display means for graphically displaying said work data read by said input means.

Granville discloses an apparatus and method for an object measurement system. The system comprises of:

a display means for graphically displaying said work data read by said input means(fig 1, 300 corresponds to display, column 4, lines 33- 42). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Marefat to include a display means for graphically displaying said work data read by said input means. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Marefat by the teaching of Granville in order to provide a readout of the data results as well as a video display of the feature type of the object, or part thereof, being inspected, (as suggested by Granville at column 5, lines 33- 35).

As to claim 2, Marefat discloses the apparatus for generating a part program wherein said part program generation means determines a position and direction of said edge detection tool based on vector data of said each selected graphic, and determines a length and number of said edge detection tool (s) based on an edge detection tool generation condition with respect to that graphic (Page 572, paragraph 6).

As to claim 3, Granville discloses the apparatus for generating a part program further comprising an editing means for editing said edge detection tool placed by said generated part program, (fig 4, item 13, corresponds to auto edge detection probe,

Art Unit: 2625

column 9, line 50 through column 10, line 45) wherein said display means graphically displays said work data by the same magnification as that of an image to be imaged during an operation of editing said edge detection tool by said editing means (column 7, lines 17- 37).

As to claim 4, Granville discloses the apparatus for generating a part program wherein said measurement condition setting means sets tolerance information for tolerance checking per said element to be measured, (column 3, lines 15- 22) and said part program generation means records tolerance information for tolerance checking in said part program based on said tolerance information set by said measurement condition setting means (column 1, lines 44- 51).

As to claim 5, Granville discloses the apparatus for generating a part program wherein said measurement condition setting means sets an auto-focus execution condition for allowing said image-measuring instrument to execute an auto-focusing operation, and said part program generation means records an auto-focus command in said part program based on said auto-focus execution condition set by said measurement condition setting means (column 7, lines 17-37, 50- 58).

As to claim 6, Marefat discloses the apparatus for generating a part program wherein said part program generation means sets a determination area (fig 1, page 569, paragraph 1), for generating an edge detection tool (fig 1) in a display area for image information obtained by practically imaging said work (page 570, paragraph 4), describing said edge detection command based on said generated edge detection tool in said part program only if an edge detection tool generated in accordance with said

Art Unit: 2625

edge detection tool generation condition set by said measurement condition setting means is contained in said determination area, and alarm displaying and terminating to generate edge detection tools if said generated edge detection tool is not contained in said determination area (page 570 paragraph 3 and 4 , page 572, paragraph 7).

As to claim 10, Marefat discloses the apparatus for generating a part program wherein said work data comprises CAD data of or image data of said work (fig 1, page 570 paragraph 3 and 4, page 572, paragraph 7).

As to claim 11, see the rejection of claim 1 above.

As to claim 12, see the rejection of claim 1 above.

As to claim 13, see the rejection of claim 1 above.

As per claim 14, claim 14 recites similar limitation as claim 1 above and similarly analyzed except for the step of a part program input means for reading a part program with description of measurement procedures containing CAD data corresponding to said work page 570, paragraph 3, and paragraph 4);

a part program execution means for executing said part program read by said part program input means to obtain a measured result for each element to be measured in said work as taught by Marefat (page 571, paragraph 5).

As to claim 15, Marefat discloses the image-measuring instrument wherein said the proximity of said graphic information of said measured result and said graphic information as said design value, error information on both graphic information. Marefat is silent about numerically displays means. However, Granville discloses an apparatus

Art Unit: 2625

and method for an object measurement system for displaying graphically work data (fig 1, 300 corresponds to display, column 4, lines 33-42).

As to claim 16, see the rejection of claim 14 above.

As to claim 17, see the rejection of claim 14 above.

As to claim 18, see the rejection of claim 14 above.

Allowable Subject Matter

5. Claims 7- 9, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wassermann et al. (US.6, 542,180 B1) discloses systems and methods for adjusting lighting of a part based on a plurality of selected regions of an image of the part.

Dalziel et al. (US.5, 579,444) discloses adaptive vision-based controller.

Pryor (US.5, 825,017) discloses method and apparatus for determining dimensions.

Pryor (5,871,391) discloses apparatus for determining dimensions.


Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is 703-305- 4876. The examiner can normally be reached on Monday - Thursday 6 - 7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SCC
Sheela Chawan
Patent Examiner
Group Art Unit 2625
May 19, 2004


BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600